

REMARKS

Applicants have amended claims 1-2, 5-6, 9-13, and 20-22 to clarify the invention and to comply with the objections cited by the Examiner. In addition, amendments to the specification have been submitted to drop the references to the VELCRO trademark and to correct a numbering error. In addition, claims 21-22 have been amended to depend from claim 20.

REJECTION OF CLAIMS 10 and 11 UNDER 35 U.S.C. §112, 2nd paragraph

Claims 10 and 11 were rejected under 35 U.S.C. §112, 2nd paragraph “as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicants regard as the invention.” Specifically, claims 10 and 11 were found “to be positively claiming the child car seat.” Applicants have amended claims 10 and 11 as well claims 12-13 to clarify the subject matter of the claims and to address the concerns raised by the Examiner. Language seemingly claiming “the child car seat” has been deleted. Applicants thank the Examiner for pointing out the ambiguous language and respectfully request that the rejection be withdrawn.

REJECTION OF CLAIMS 1 and 3-4 UNDER 35 U.S.C. §102(b)

Claims 1 and 3-4 were rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 5,549,354 to Rosen [“Rosen”]. Rosen discloses a heat reflective cover for use with an infant retaining device. The reflective cover comprises “a highly reflective solar energy reflecting surface,” which may also be a “metalized film surface.” (Claims 1-2). The reflecting surface protects an unoccupied infant retaining device from the sun’s light and heat by acting as a barrier to the retaining device. The reflecting surface moderates the temperature of the retaining device, particularly in hot weather conditions. Rosen, however, fails to teach or provide means to warm an infant retaining device.

The present invention discloses a thermal protection device for temperature moderation of an unoccupied child car seat in both hot and cold conditions. A flexible thermal barrier may comprise a reflecting layer configured to reflect radiant energy, particularly in hot weather conditions, and an absorbing layer configured to absorb radiant energy, particularly in cold weather conditions. The

present invention teaches: “To keep a car seat from getting hot, the thermal barrier 110 is positioned with the reflecting layer 110a facing outward from the car seat. To keep a car seat from getting cold, the thermal barrier 110 is positioned with the reflecting layer 110a facing inward and the absorbing layer 110c facing outward.” (Page 8, lines 19-22). Applicants assert that Rosen fails to teach an energy absorbing layer for keeping a child car seat from getting cold while unoccupied. Therefore, the present invention enables a user to utilize the same flexible thermal barrier for both warming and cooling an unoccupied child car seat.

Accordingly, in order to distinguish further the thermal protection device of the present invention from the heat reflective cover taught by Rosen, Applicants have amended claim 1 to include the unique absorbing layer for absorbing radiant energy. In conjunction therewith, Applicants have amended claim 2 to include the insulating layer of the original claim 1 and claim 20 to include the limitations of claim 1. As detailed hereafter, Applicants assert that the amendments to claims 1-2 and 20 sufficiently clarify the claimed subject matter of the invention, and place the claims in condition for allowance.

REJECTION OF CLAIM 2 UNDER 35 U.S.C. §103(a)

The Examiner rejected claim 2 under 35 U.S.C. §103(a) as being unpatentable over Rosen in view of U.S. Publication No. 2003/0144410 to Vogt et al. [“Vogt”]. Applicants respectfully traverse this rejection.

First of all, Vogt was filed as a new application on November 13, 2002. The present invention claims a priority date of September 12, 2002. The technology disclosed in Vogt would not have been familiar to one of ordinary skill in the art at the time the invention was made, which is a provision for rejection under 35 U.S.C. §103(a). Thus, it would not have been obvious to one of ordinary skill in the art “to add a coating of the disclosed polymer latex taught by Vogt to the apparatus (A) disclosed by Rosen.”

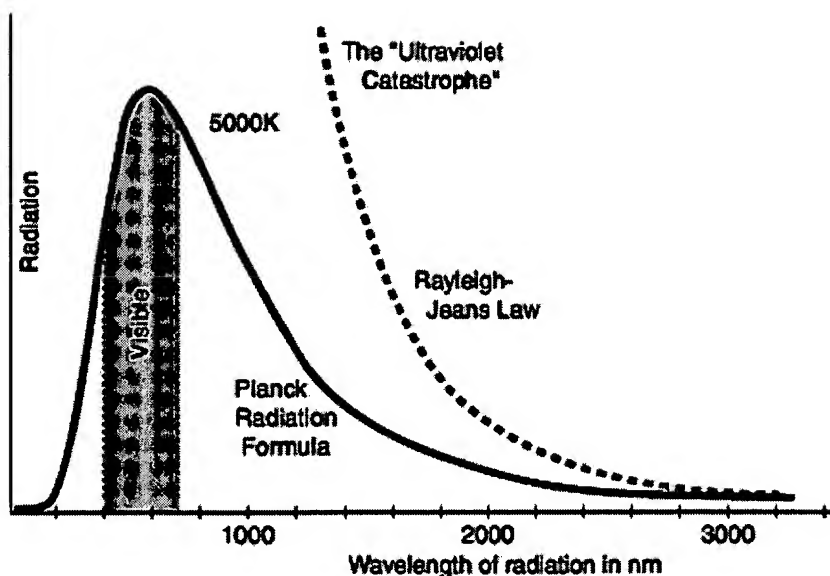
Furthermore, the assertion that, “Such a modification would help prevent a loss of color or, at the least, a noticeable decrease in color strength” is not relevant to the claimed subject matter. Prevention of color loss is not an objective of the present invention, and a person of skill in the art

would not necessarily desire to add a latex layer to prevent color loss of a covering for a child car seat.

The specification clearly states the function of the absorbing layer on page 8 lines 16-17 and lines 21-22. “. . . the absorbing layer 110c absorbs radiant energy such as (infrared) heat and solar radiation” . . . “to keep a car seat from getting cold, the thermal barrier 110 is positioned with the reflecting layer 110a facing inward and the absorbing layer 110c facing outward.” Absorbing infrared heat and solar radiation consequently enables the thermal protection barrier of the present invention to transfer absorbed heat to a child car seat, thereby keeping the child car seat warm while unoccupied.

Applicants assert that Vogt makes no mention of absorbing heat or a similar concept as the function of his polymer latex. Furthermore, Vogt mentions only UV protection and as such, may not absorb energy within the infrared and visible range of the spectrum, which constitutes a substantial portion of the energy of the solar spectrum. In fact, the peak wavelength of solar energy is about 550 nm, which lies well within the visible spectrum. Applicants will show that the latex of Vogt would not function adequately as the claimed absorbing layer within the context of the present invention.

A study of Plank’s radiation formula and Bose-Einstein statistics show why the latex of Vogt would not function adequately as the claimed absorbing layer of the present invention. As shown in the following graph obtained from <http://hyperphysics.phy-astr.gsu.edu/hbase/mod6.html> (which appears to have a peak wavelength of about 550 nm corresponding to solar radiation), radiant energy has an asymmetric wavelength distribution known as a blackbody radiation distribution. The ultraviolet portion of the solar radiation spectrum (shown to the left of the visible region) is sharply attenuated compared to the visible and infrared portions of the spectrum. Therefore, the absorbing characteristics within the ultraviolet region are insignificant compared to the absorbing characteristics of the visible and infrared regions.



A simpler explanation may be rendered as follows: Vogt's layer of polymer latex could not absorb significant energy within the visible spectrum since doing so would block light within the visible range and make the colored regions of the material substantially non-visible to the viewer. Vogt's polymer latex would preferably be transparent in the visible region of the spectrum and not absorb visible light.

Clearly, the ability to absorb solar radiation is not an object of Vogt's disclosure. Rather, the objective is to absorb the UV portion of solar radiation and thereby "prevent a loss of color or, at the least, a noticeable decrease in color strength." (See paragraph 0004 of Vogt.) Furthermore, the disclosure is silent as to the ability of the polymer latex to absorb infrared radiation. The ability to absorb infrared radiation is implied in the present invention by the claimed limitation of "an absorbing layer configured to absorb radiant energy" and further clarified within the specification as infrared heat and solar radiation.

Applicants assert that one of skill in the art would not anticipate the present invention via a reading of Rosen and Vogt. For example, it would not be clear that one would apply the polymer latex on the face of the thermal barrier opposite the reflective layer unless one had already had conceived the concept of an absorbing layer opposite the reflective layer. Furthermore, the polymer latex of Vogt does not fulfill the required function of an absorbing layer within the context of the present invention.

Applicants assert that Vogt and Rosen do not anticipate the claimed invention. Specifically, Applicants assert that it is improper to assume that a reader would be looking for an absorbing material or layer in regards to a protective device for a child car seat since conception of an absorbing layer on a face opposite the reflecting layer constitutes an inventive act and to assume that the claimed invention is already in the mind of the reader would be improper.

Furthermore, similar terminology used in Vogt and the present invention, such as “absorbing” and “layer,” is coincidental and does not constitute a physical likeness or even shared physical properties. Moreover, one of skill in the art intent on providing an absorbing layer would not be motivated to add a latex polymer film for ultraviolet absorption to the reflective covering of Rosen in order to provide a reflective covering for an unoccupied infant retaining device. Therefore, Applicants request that the rejection be withdrawn.

REJECTION OF CLAIMS 5-13 and 20-22 UNDER 35 U.S.C. §103(a)

Claims 5, 9 and 12-13 were rejected under 35 U.S.C. §103(a) as being unpatentable over Rosen in view of U.S. Patent No. 5,833,309 to Schmitz [“Schmitz”]. Schmitz discloses a child car seat temperature control device and method. The temperature control device includes a covering with a plurality of pockets to retain packets of warming or cooling material. The packets of warming or cooling material warm or cool the surface of a child car set respectively.

In contrast, the present invention discloses a detachable pouch for receiving a temperature moderation device. The pouch may also be made of waterproof thermally conductive material and may include a water absorbent lining.

Claims 6 and 20 were rejected under 35 U.S.C. §103(a) as being unpatentable over Rosen in view of Schmitz and in further view of U.S. Patent No. 5,572,757 to O’Sullivan [“O’Sullivan”]. O’Sullivan teaches a body support having a sleeve (or pocket) to receive a hot/cold pack. O’Sullivan also discloses a terry cloth protector “to absorb condensation.” (Column 4, lines 46-47). The terry cloth protector may line the sleeve (or pocket), which is “preferably a single piece of material that is sewed directed to the top surface 26.” (Column 4, lines 39-40). The terry cloth protector as described does not include a fastener or the like to fasten the protector to the body support.

The present invention teaches a detachable pouch with a fastener. "The size, shape and position of the fastener 1030 facilitate placing the pouch and temperature moderation device at a position that is in direct contact with components such as buckles or clips that may come in direct contact with an occupant of the child car seat." (Page 11, lines 21-24). The detachable nature of the pouch enables the user to place the temperature moderation device at an advantageous location with respect to the child car seat and the flexible thermal barrier.

The assertion that: "It would have been obvious to one of ordinary skill in the art at the time of the instant invention to modify the pouches disclosed by Rosen, as modified, to be detachable as taught by O'Sullivan. Such a modification would enable the pouches to be positioned where they are most effective," is unsupported by the prior art. Applicants assert that the detachable nature of the pouch is not suggested or taught in O'Sullivan. Specifically, the independent terry cloth protector 54 disclosed in O'Sullivan is intended to be a liner inserted into the sleeve (or pocket) 50. The terry cloth protector 54 does not enable "the pouches to be positioned where they are most effective," as the Examiner claims. The terry cloth protector 54 is inserted into a fixed position inside of the pocket 50, very similar to the pockets 38 disclosed in Schmitz.

Applicants assert that neither Schmitz nor O'Sullivan teaches detachable pouches that may be "positioned where they are most effective." The present invention alone discloses such an advantage.

The courts have indicated that hindsight is not permissible in asserting an obviousness rejection. "It is insufficient that the prior art disclosed the components of the patented device, either separately or used in other combinations; there must be some teaching, suggestion, or incentive to make the combination made by the inventor." *Northern Telecom, Inc. v. Datapoint Corp.*, 908 F.2d 931, 934 (Fed. Cir. 1990).

Applicants assert that there must be some suggestion or motivation to modify the references or to combine reference teachings to arrive at the claimed invention. "The teaching or suggestion to make the claimed combination ... must be found in the prior art, not in applicant's disclosure." MPEP 2143, citing *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991).

Applicants assert that a case of obviousness has not been made, because neither Schmitz nor O'Sullivan includes a suggestion or motivation to modify or combine these references to arrive at the claimed invention. O'Sullivan, in fact, comes from an entirely different field of art than Schmitz or

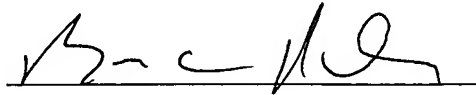
the present invention. Both Schmitz and the present invention disclose child car seat covers, while O'Sullivan discloses an invention in the unrelated art of body supports. Nowhere does section 103(a) allow obviousness to be established through a combination of different arts, besides the fact that neither reference discloses a detachable pouch. Therefore, Applicants request that the rejection(s) of claims 6 and 20 be withdrawn.

Claims 7 and 21-22 were rejected under 35 U.S.C. §103(a) as being unpatentable over Rosen in view of Schmitz, in further view of O' Sullivan and in further view of U.S. Patent No. 6,088,856 to Boyer et al. ["Boyer"]. Boyer discloses a fluid dispenser that may be used for a head and neck support. The fluid dispenser comprises an exterior shell 40, an interior lining 42, and an insulative pad 44 positioned between the exterior shell and interior liner. The exterior shell 40 "is preferably manufactured from a water repellant material." (Column 3, lines 59-60). Although Boyer discloses a water repellant shell 40, Boyer does not suggest that the shell 40 should be attached to a flexible thermal barrier to cool or warm the components of a child car seat, or to any other object for that matter. The fluid dispenser disclosed in Boyer is for neck support and getting a drink, not for attaching the support to another object or for cooling or warming another object. Applicants therefore request that the rejection of claims 7 and 21-22 be withdrawn.

In response to the rejection of claim 9, Applicants have amended the claim to clarify the functional elements of the present invention. In one embodiment, the functional elements enable the flexible thermal barrier to be stored in a readily accessible storage position on a child car seat. Thus, the user may easily deploy, store, and/or remove the flexible thermal barrier as disclosed. Additionally, the flexible thermal barrier may be attached to a child car seat and stored above or behind the child car seat as claimed in claims 10-11 and illustrated in Figures 6-7.

In view of the foregoing, Applicants submit that the application is in condition for immediate allowance. In the event any questions remain, the Examiner is respectfully requested to initiate a telephone conference with the undersigned.

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'B-C K', is written over a horizontal line.

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